

ABSTRACT

A channel layer made of undoped InGaAs, a carrier supply layer made of n-type AlGaAs, a Schottky layer made of disordered InGaP without a natural lattice structure, and
5 a cap layer made of GaAs are successively stacked on a compound semiconductor substrate. A gate electrode is formed on a part of the Schottky layer exposed at the opening of the cap layer. Source and drain electrodes are formed on the cap layer. The thickness of the Schottky layer is set at about 8nm or less. As a result, the reverse breakdown voltage of the gate electrode becomes larger than that in the case of a Schottky
10 layer made of AlGaAs.